

INSTALLATION GUIDE



# SUPER TIE<sup>TM</sup>

FIBERGLASS FORM-TIE SYSTEMS

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3,000 Lbs Safe Working Load

**NEVER PATCH . . . NEVER RUST**





# SUPERTIE™

## FIBERGLASS FORM-TIE SYSTEMS

3,000 Lbs Safe Working Load

SuperTie™ Patented Fiberglass Form Tie Systems are used to secure concrete form work during concrete placement and initial hydration, without the inherent limitations of previously popular steel form tie systems. SuperTie™ systems eliminate the possibility of rust stains as well as the structural deterioration often caused by failure of patching for steel form tie holes. SuperTie™ Systems are appropriate for use in all forming applications but are especially beneficial in situations such as architectural finishes.

- 1. Superior Finishes:** Improved architectural finishes, without patches or rust.
- 2. No Corrosion:** The fiberglass form tie material cannot rust, eliminating the need to have a break-back and the need for subsequent plugging and patching to forestall rust.
- 3. Saves Money:** Saves dramatically on labor costs. Reduces form-tie related costs as much as 70%. Reduced Inventory: One size fits any wall. Bulk lengths are cut to the working measurements at the jobsite.
- 4. Extends Form Life:** All forms and form liners strip easily from the structure without damage from the ties.
- 5. Natural Insulator:** Fiberglass tie, which is left in the structure, is electromagnetically transparent, making it ideal for special situations where magnetic or electrical interference is undesirable. Fiberglass will not promulgate radio frequency and shields nuclear energy.
- 6. Compatible:** SuperTie™ systems are compatible with all job-built and commercially available forming systems.



US Patent #7,819,388



RJD Industries R6 fiberglass smooth rod system (.308) is available in the following standard length, gray color:  
 - 37", 48", 12ft and 20ft  
 - Also, brown, tan, black and white in 12ft length

### Non-Corrosive Fiberglass Smooth Rod

RJD Fiberglass Smooth Rod, utilizes a specially blended and formulated custom engineered resin providing ultimate tensile strength and maximizing our GND6000 Gripper strength. The RJD Fiberglass Smooth Rod will never rust thus eliminating the need for breakback, plugging and patching, providing a superior architectural finish.

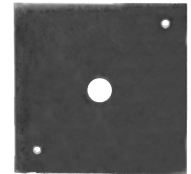
### SuperTie™ Patented Gripper – GND6000

SuperTie™ Patented Gripper offers a safe working load of 3,000 pounds and is most commonly used with the jobsite-built (plywood and 2x4) forms and most modular forms.



### SuperTie™ Bearing Plate – BP615

The SuperTie™ Bearing Plate is a 4"x4" steel plate and fits the SuperTie systems. The SuperTie™ bearing plates are a required component of the "SuperTie™ Gripper System" when using a wooden forming system.

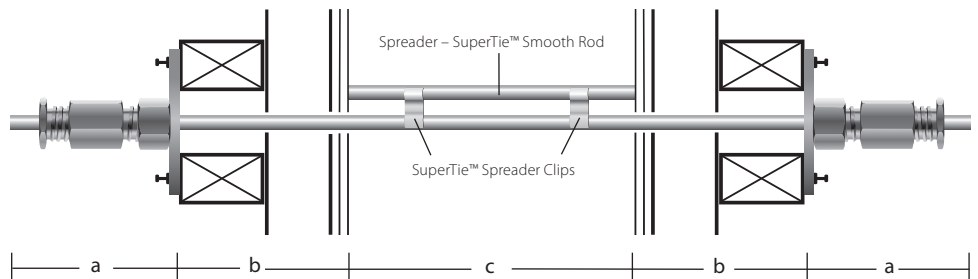


### Ordering SuperTie™ Rods

Formula for a 12" thick structure  
 [ 2 (a) + 2 (b) + c = required materials ]

Example:

a. (2) 4.75" Grippers + Rod Tails .....9.5"  
 b. (2) 7.75" forms width .....15.5"  
 c. Structure width ..... 12"  
 Total rod length needed..... 37"



Note: Cut fiberglass rod using a diamond blade.

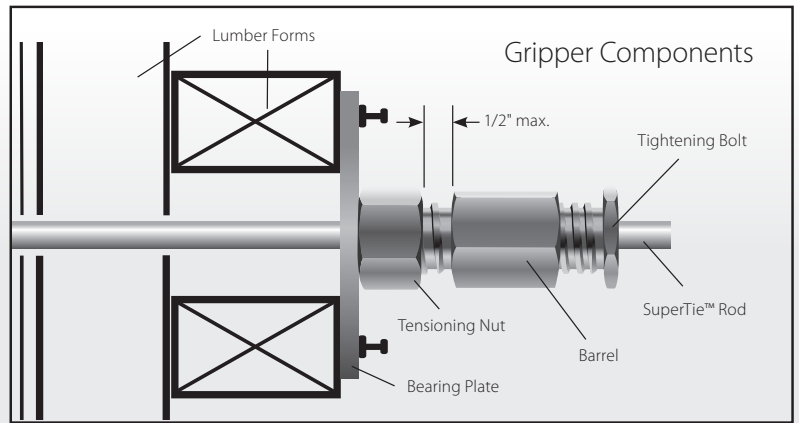
## INSTALLATION STEPS



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Slide the fiberglass rod through the form. Short lengths of fiberglass rod can be used as internal spreaders; these spreaders can be either tied to the rebar cage, or attached to the tie rod by using two Spreader Clips.



Slip Bearing Plate and Gripper onto the fiberglass rod. For a battered wall, add wedge shaped spacers so that the fiberglass rod is kept straight. The strength of a bent rod is significantly reduced.



Lock the Gripper onto the fiberglass rod by hand tightening the "tightening bolt," and then with a wrench, a 3/4 turn clockwise. On the opposite side of the form, lock another Gripper onto the fiberglass rod.



Use the "tensioning nut" to adjust width of form, or tighten form against internal spreaders (there is a maximum of 1/2" of adjustability for each Gripper). You are now ready to place concrete.



Cut the fiberglass rod between the Gripper and the form.



After removing the forms, you will see short lengths of fiberglass rod sticking out of your structure.



To ensure protection of exposed concrete surface, drill sheet metal 3/8" hole and slide over rod, then cut.



Grind the stubs of fiberglass rod off flush to the concrete structure using a grinder with a diamond blade.



The tie will nearly disappear. No breakback. No plugging. No patching.

**Warning:** Once SuperTie™ installation is complete, the tie must be completely straight through the formwork. Any bending, bowing, sagging, or deflection will drastically lower tie strengths and could result in failure.





Tie spacing is determined by standard industry practices based on ACI 347R-14. Always review formwork design, concrete mix and special on-site conditions with a qualified Engineer to determine proper Form Tie spacing. Examples of approximate tie spacings at common placement rates are shown below.  
3,000 Lbs Safe Working Load

| Always refer to ACI 347R-14 Guide to Formwork for exact calculations                                                                                                                                                    |                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| $R < 7 \text{ ft/hr}$<br>$P = 150 + (9000 \times R)/T$<br><i>(without any admixture)</i>                                                                                                                                | $R > 7 \text{ ft/hr but } < 10 \text{ ft/hr}$<br>$P = 150 + (43,400/T) + (2800 \times R)/T$<br><i>(without any admixture)</i> |
| <b>KEY:</b> P = Concrete Lateral Pressure, lb/ft <sup>2</sup> • W = Unit Weight of Concrete, lb/ft <sup>3</sup> • H = Height of Concrete Placement, ft<br>R = Rate of Placement, ft/h • T = Temperature of Concrete, °F |                                                                                                                               |

| Ambient temp. @ time of pour (°F) |       |       | Form Tie Spacing |       | Form Tie Values      |                |             |
|-----------------------------------|-------|-------|------------------|-------|----------------------|----------------|-------------|
| 40°                               | 60°   | 80°   |                  |       |                      |                |             |
| Rate of Concrete Placement: ft/hr |       |       | Horz.            | Vert. | Area ft <sup>2</sup> | Pressure (psf) | S.W.L. (lb) |
| 6' 9"                             | 10'   | 10'   | 16"              | 16"   | 1.78                 | 1685           | 3000        |
| 6'                                | 10'   | 10'   | 24"              | 12"   | 2.00                 | 1500           | 3000        |
| 4' 4"                             | 6' 6" | 10'   | 24"              | 16"   | 2.67                 | 1123           | 3000        |
| 2' 8"                             | 4'    | 5' 3" | 24"              | 24"   | 4.00                 | 750            | 3000        |

NOTE: Tables are relative to SuperTie™ Form Tie approximate spacing only. The contractor must consider industry standards for other formwork components, sheeting, accessory lumber and commercially available formwork strengths. Always review formwork design, concrete mix and special on-site conditions with a qualified Engineer to determine proper Form Tie spacing.

For assistance Calculating SuperTie™ Material List and Quantities, please call RJD Industries LLC

## COMPONENT LIST

| Product Code | Description                                           | Packaging                       | Ship Wt. |
|--------------|-------------------------------------------------------|---------------------------------|----------|
| R6/37-100    | SuperTie Rod 37" lengths, gray in color, 3,000 lb SWL | 100 per box – total 308 ft.     | 22 lb    |
| R6/48-100    | SuperTie Rod 48" lengths, gray in color, 3,000 lb SWL | 100 per box – total 400 ft.     | 28 lb    |
| R6/12G       | SuperTie Rod 12ft. lengths, gray color, 3,000 lb SWL  | 50 per bundle – total 600 ft.   | 42 lb    |
| R6/20G       | SuperTie Rod 20 ft. lengths, gray color, 3,000 lb SWL | 50 per bundle – total 1,000 ft. | 68 lb    |
| GND6000      | Gripper                                               | 100 per bucket                  | 76 lb    |
| BP615        | Bearing Plate                                         | 50 per box                      | 55 lb    |
| SC6000       | Spreader Clip                                         | 100 per bag                     | 9 oz.    |
| WS6000       | WaterStop                                             | 100 per bag                     | 15.5 oz. |

For custom rod lengths and/or custom colors, please call for quote and lead times.

\*SWL = Safe Working Load

**IMPORTANT:** When determining tie spacings, refer to guidelines in ACI 347R-14. All formwork load calculations shall be performed by a qualified engineer. Failure to do so may result in form failure or injury.

scan for a distributor



RJD Industries, LLC  
(800) 344-4753 • rjdindustries.com

SuperTie™ Systems are sold exclusively through quality construction materials dealers. Scan the QR code to see our distributor locations or just call us for the name of the dealer nearest you.